

From: gould.diane@epamail.epa.gov
Sent: Thursday, July 03, 2003 4:06 PM
To: Richardson, Hetty L
Subject: Re: cruise ship discharges [mx_ADV?]

Hello- In response to your letter requesting my issues of concern, I will summarize them briefly below:

-Treated sewage discharges from MSDs do not attain the level of treatment achieved under landside treatment regulations. Since these discharges are not tested, they are potentially a source of contamination by enteric bacteria, and viruses. When absorbed by filter-feeding clams and other shellfish, they can become a human health threat. In a 2001 study of treated sewage from 22 cruise ships conducted by the Alaska DEC and the US Coast Guard, levels of fecal coliforms were observed that exceeded federal limits by as much as 100,000 times. Prohibition of discharges from MSDs would offer enhanced protection for the waters of Casco Bay from pollution. Circulation and flushing patterns in Maine coastal waters lead to dispersion of the pollutant plumes from ship discharges over a wide area, leading to the conclusion that a Federal No Discharge Zone encompassing the state territorial waters is an important step in protecting the coastal waters from black water pollution.

-Gray water discharges can carry a cocktail of pollutants including food wastes, oil and grease, detergents, cleaners, pesticides, medical wastes and even high levels of fecal coliforms, indicating the potential presence of viruses threatening human health. Discharges into sensitive resource areas can also lead to pollution of shellfish beds and stress to sensitive marine organisms.

-Other unregulated discharges, such as oily bilge water and ballast water can also potentially threaten marine resources by introducing organic pollutants, invasive exotic species and disease-causing pathogens. Ballast water is the leading source of invasive species in marine waters, leading to the loss of biodiversity, threatening native species and potentially introducing pest species. Ballast water can also serve as a source of the disease-causing organism *V. cholera*, as well as toxin-producing microalgae which threaten both marine organisms and the humans that consume them (e.g., *Alexandrium* and *Pfisteria piscicida*).

- State discharge regulations in Alaska have been difficult to enforce, suggesting that a plan for compliance should be addressed.

Diane Myrick Gould, Ph.D.
USEPA
1 Congress Street, Suite 1100 CME
Boston, MA 02114
617/918-1569
617/918-1505 FAX

